Activation of cells bearing CD40 on their surface by CD40 ligand is inhibited by contacting the cells with an agent capable of inhibiting interaction between CD40 ligand and the cells. Activation of cells bearing CD40 on their surface by CD40 ligand in a subject is inhibited by administering to the subject an agent capable of inhibiting interaction between CD40 ligand and the cells. Conditions dependent on CD40 ligand-induced activation of CD40-bearing cells are treated, in particular atherosclerosis.

C1

IN THE CLAIMS*

Please cancel claims 102, 109, 110, 111, 128 and 129, without prejudice.

Please amend claims 1, 103, 104, 112, 117, 119 and 121 to 127 to read as follows:

C2

1. (Twice Amended) A method for treating atherosclerosis in a subject comprising the step of administering to said subject an antibody, a Fab, a F(ab')2 or a single chain antibody, which binds specifically to a protein specifically bound by monoclonal

*The amendments to the Abstract and Claims are indicated in Appendix A hereto, using brackets for text deleted and underscoring for text added.

C2 antibody 5c8, produced by the hybridoma having ATCC Accession No. HB 10916.

103. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, inhibits binding of CD40 ligand to CD40 on the surface of endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages, or dendritic cells in said subject.

C3

104. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is effective to inhibit transmigration of inflammatory cells across the barrier of endothelial cells in said subject.

112. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is selected by a screening method, which comprises the steps of:

C4

(a) isolating a sample of cells comprising endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells;

(b) culturing said sample under conditions permitting activation of the CD40-bearing endothelial cells,

fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells;

(c) contacting said sample with:

(i) cells expressing a protein which is specifically recognized by monoclonal antibody 5c8 produced by the hybridoma having ATCC Accession No. HB 10916, or

(ii) a protein which is specifically recognized by monoclonal antibody 5c8 produced by the hybridoma having ATCC Accession No. HB 10916,

under conditions which permit activation of said CD40-bearing endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells;

(d) contacting said sample with an antibody, a Fab, a F(ab')2 or a single chain antibody, under conditions which permit said antibody, Fab, F(ab')2 or single chain antibody, to inhibit activation of said CD40-bearing endothelial cells,

fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells; and

C4 (e) determining whether said antibody, Fab, F(ab')2 or single chain antibody, is capable of inhibiting activation of said CD40-bearing endothelial cells, fibroblasts, epithelial cells, T cells, basophils, macrophages or dendritic cells.

C5 117. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject by a parenteral route.

C6 119. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject by sustained release administration.

C7 121. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject at a dosage range of between about 0.01 and 200 mg/kg body weight of said subject.

122. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is

administered to said subject at a dosage range of between about 0.01 and 50 mg/kg body weight of said subject.

123. (Amended) The method according to claim 1, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject at a dosage range of between about 1 and 30 mg/kg body weight of said subject.

124. (Amended) The method according to any one of claims 121 to 123, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject at intervals ranging from each day to every other month.

125. (Amended) The method according to any one of claims 121 to 123, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject daily for the first three days of treatment, after which the compound is administered to said subject every 3 weeks.

126. (Amended) The method according to any one of claims 121 to 123, wherein said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject daily intravenously for the first three days of treatment, after which the antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject subcutaneously or intramuscularly every week.

127. (Amended) The method according to any one of claims 121 to 123, wherein a single dose of said antibody, Fab, F(ab')2 or single chain antibody, is administered to said subject parenterally at 20 mg/kg body weight of said subject, followed by administration of the antibody, Fab, F(ab')2 or single chain antibody, subcutaneously or intramuscularly every week at a dosage of 10 mg/kg body weight of said subject.

Please add claims 130 and 131 as follows:

130. (Added) The method according to claim 125, wherein said antibody, Fab, F(ab')2 or single chain antibody is administered to said subject by intravenous administration at a dosage of 5 or 10 mg/kg body weight of said subject.

131. (Added) The method according to claim 126, wherein said antibody, Fab, F(ab')2 or single chain antibody is administered to said subject intravenously at a dosage of 5 mg/kg body weight of said subject for the first three days of treatment, after which said antibody, Fab, F(ab')2 or single chain antibody is administered to said subject subcutaneously or intramuscularly every week at a dosage of 10 mg/kg body weight of said subject.